Zhi Li

Contact Information	Department of Computer Science Stony Brook University, Stony Brook, NY 11794 USA	*E-mail:* zhi.li.5@stonybrook.edu *Homepage:* http://zhili42.com

Research Interests

Mobile and Sensor Networks, Mobile Crowdsourcing, Machine Learning, Game Theory

Education

Stony Brook University, Stony Brook, NY, USA

- PhD student, Computer Science, (Aug 2018 - Current)

Hangzhou Dianzi University, Hangzhou, China

- M.E., Computer Science and Technology, Mar 2017
- Thesis title: "IoT Based Fire Escaping Algorithm and System Design"
- Advisor: Prof. Jianhui Zhang

Hangzhou Dianzi University, Hangzhou, China

- B.E., Computer Science and Technology, Jun 2014

Skills

Basic: Algorithm design and analysis, System building
Programming: Java, Android, Python, NesC, TinyOS
Language: Chinese (Native), English

Honors and Awards

Outstanding Graduate Student in Zhejiang Province	2017
Outstanding Graduate Student in Hangzhou Dianzi University	2017
National Scholarship for Graduate Student (11/304, ranked 1st)	2016
Nokia Scholarship for Graduate Student (2/147)	2015
National Scholarship for Graduate Student (10/283, ranked 7th)	2015
The First Prize Academic Scholarship (Top 10%)	2015 - 2016

Publications

Conference Papers

1. Jianhui Zhang, Pengqian Lu, **Zhi Li**, Jiayu Gan. "Distributed Trip Selection Game for Public Bike System with Crowdsourcing". In *the IEEE International Conference on Computer Communications* (**INFOCOM'18**). Honolulu, HI, USA. Apr 15 - 19, 2018.
2. **Zhi Li**, Jianhui Zhang, Jiayu Gan, Pengqian Lu, Fei Lin. "Large-Scale Trip Planning for Bike-Sharing Systems". In *the 14th IEEE International Conference on Mobile Ad-hoc and Sensor Systems* (**MASS'17**), Orlando, FL, USA. Oct 22 - 25, 2017.
3. Jianhui Zhang, **Zhi Li**, Xiaojun Lin, Feilong Jiang. "Composite Task Selection with Heterogeneous Crowdsourcing". In *the 14th Annual IEEE International Conference on Sensing, Communication, and Networking* (**SECON'17**), San Diego, CA, USA. Jun 12 - 14, 2017.
4. Jianhui Zhang, Mengmeng Wang, **Zhi Li**. "Stochastic Duty Cycling for Heterogenous Energy Harvesting Networks". In *the 34th IEEE International Performance Computing and Communications Conference* (**IPCCC'15**), Nanjing, China. Dec 14 - 16, 2015.

Journal Articles

1. **Zhi Li**, Jianhui Zhang, Jiayu Gan, Pengqian Lu, Zhigang Gao, Wanzeng Kong. "Large-Scale Trip Planning for Bike-Sharing Systems". *Pervasive and Mobile Com-*

puting, 54: 16 - 28, 2019. DOI:10.1016/j.pmcj.2019.01.007. [Impact Factor: 2.974]

2. Wei Li, Jianhui Zhang, Feilong Jiang, **Zhi Li**, Chong Xu. "Asynchronous Neighbor Discovery with Unreliable Link in Wireless Mobile Networks". *Peer-to-Peer Networking and Applications*, 2018. DOI:10.1007/s12083-018-0672-y. [Impact Factor: 1.514]
3. **Zhi Li**, Jianhui Zhang, Xingfa Shen, Jin Fan. "Prediction Based Indoor Fire Escaping Routing with Wireless Sensor Network". *Peer-to-Peer Networking and Applications*, 10(3): 697 - 707, 2017. [Impact Factor: 1.0]
4. Jianhui Zhang, **Zhi Li**, Shaojie Tang. "Value of Information Aware Opportunistic Duty Cycling in Solar Harvesting Sensor Networks". *IEEE Transactions on Industrial Informatics* (**TII**), 12(1): 348 - 360, 2016. [Impact Factor: 4.708]
5. Jianhui Zhang, **Zhi Li**, Feng Xia, Shaojie Tang, Xingfa Shen, Bei Zhao. "Cooperative Scheduling for Adaptive Duty Cycling in Asynchronous Sensor Networks". *The Computer Journal*, 58(6): 1267 - 1279, 2014. [Impact Factor: 0.787]

Presentation

1. **Large-Scale Trip Planning for Bike-Sharing Systems**, paper presented at the IEEE MASS 2017, Orlando, FL, USA. Oct 24 2017.
2. **Stochastic Duty Cycling for Heterogenous Energy Harvesting Networks**, paper presented at the IEEE IPCCC 2015, Nanjing, China. Dec 15 2015.

Research Projects

Crowdsourcing Based Bike-Sharing System, 2016 - 2018

- Designed algorithms to solve the static trip planning problem, related papers are accepted by the IEEE MASS'17 and the IEEE INFOCOM'18.
- Designed a game theory based composite task selection approach in heterogeneous crowdsourcing platform, the paper is accepted by the IEEE SECON'17.
- Built a crowdsourcing platform to collect real-time bike resources information and to provide bike utilization guidance for users.
- Built an application to crawl real-time open bike-sharing information of Hangzhou Public Bicycle.

Internet of Things Based Fire Escaping System, 2014 - 2018

- Constructed a fire spread model based on fire data generated by Fire Dynamics Simulator and proposed a fire escaping route planning algorithm based on fire spread prediction. The paper is published in the Peer-to-Peer Networking and Applications.
- Designed a neighbor discovery method for smartphone based on Quorum System.
- Built a network with TelosB nodes, Android smartphones and Arduino suite.

Professional activities

Reviewer for Theoretical Computer Science	2019
Reviewer for IEEE Transactions on Industrial Informatics	2017
Reviewer for Computer Networks	2017
Reviewer for International Journal of Ad Hoc and Ubiquitous Computing	2017
Reviewer for The Computer Journal	2015

Grants

1. **Excellent Master Dissertation Fostering Foundation**, "Internet of Things Based Fire Escaping System", Hangzhou Dianzi University, PI: Zhi Li, May 2016 - Mar 2017
2. **Graduate Scientific Research Foundation**, "Wireless Sensor Networks Based Fire Escaping System and Algorithm Design", Hangzhou Dianzi University, PI: Zhi Li, May 2015 - May 2016

3. **National Natural Science Foundation of China**, "Research on Environment Information Collaborative Sensing and Processing in Internet of Things", Participator, Jan 2015 - Dec 2018
4. **Zhejiang Provincial Natural Science Foundation of China**, "Research on Optimizing Task Scheduling Strategy in Random Energy Harvesting Internet of Things", Participator, Jan 2014 - Nov 2016

SERVICES

TA for *CSE 214 Data Structures*	Sep 2018 - Dec 2018
TA for *Java Programming*	Sep 2015 - May 2016
Class monitor	2014 - 2017